WHAT IS CLAIMED IS:

1. A method for reducing power consumption by an integrated circuit in an implantable cardiac stimulation device, comprising the steps of:

a. converting a battery supply voltage to a second voltage, said second voltage being less than said battery supply voltage but sufficient for proper operation of the integrated circuit;

b. regulating said second voltage to produce a regulated second voltage; and

c. providing said regulated second voltage to the integrated circuit,

whereby power consumption of the integrated circuit when supplied by said regulated second voltage is less than power consumption of the integrated circuit when supplied directly by the battery supply voltage.

2. The method of claim 1, wherein step (a) comprises the step of reducing the battery supply voltage in an amount according to a predetermined step-down ratio.

3. The method of claim 2, wherein said predetermined step-down ratio is approximately 1:2.

4. The method of claim 2, wherein said predetermined step-down ratio is approximately 1:3.

5. The method of claim 2, wherein said predetermined step-down ratio is approximately 1:4.

6. The method of claim 2, wherein said predetermined step-down ratio is approximately 2:3.

7. The method of claim 2, wherein said predetermined step-down ratio is approximately 3:4.

8. The method of claim 1, wherein step (b) comprises the step of stabilizing said second voltage to provide a constant voltage to said integrated circuit.

9. An apparatus for reducing power consumption by an integrated circuit in an implantable cardiac stimulation device, comprising:

a step-down circuit for converting a battery supply voltage to a second voltage, said second voltage being less than said battery supply voltage but sufficient for proper operation of the integrated circuit; and

a regulator for regulating said second voltage to produce a regulated second voltage and providing said regulated second voltage to the integrated circuit, whereby power consumption of the integrated circuit when supplied by said regulated second voltage is less than power consumption of the integrated circuit when supplied directly by the battery supply voltage.

10. The apparatus of claim 9, whereby said step-down circuit reduces said battery supply voltage according to a predetermined step-down ratio.

11. The apparatus of claim 10, wherein said predetermined step-down ratio is approximately 1:2.

12. The apparatus of claim 10, wherein said predetermined step-down ratio is approximately 1:3.

13. The apparatus of claim 10, wherein said predetermined step-down ratio is approximately 1:4.

14. The apparatus of claim 10, wherein said predetermined step-down ratio is approximately 2:3.

15. The apparatus of claim 10, wherein said predetermined step-down ratio is approximately 3:4.

16. The apparatus of claim 9, wherein said step-down circuit is a capacitor voltage division circuit.

17. The apparatus of claim 9, wherein said regulator is linear voltage regulator circuit.

18. The apparatus of claim 9, whereby said regulator stabilizes said second voltage to provide a constant voltage to said integrated circuit.

19. The apparatus of claim 9, wherein said integrated circuit is a programmable microcontroller.

20. An implantable cardiac stimulation device comprising:

a programmable microcontroller;

a battery; and

means for stepping-down a voltage supplied by said battery to a second voltage, said second voltage being less than said voltage supplied by said battery but sufficient for proper operation of said microcontroller, whereby power consumption of the microcontroller when supplied by said second voltage is less than power consumption of the microcontroller when supplied directly by said battery.

21. The device of claim 20, wherein said stepping-down means comprises:

a step-down circuit coupled to said battery for converting a voltage supplied by said battery to said second voltage; and

a regulator coupled to and between said step-down circuit and said microcontroller for regulating said second voltage to produce a regulated second voltage and providing said regulated second voltage to the microcontroller.

22. The device of claim 21, whereby said step-down circuit reduces said voltage supplied by said battery according to a predetermined step-down ratio.

23. The device of claim 22, wherein said predetermined step-down ratio is approximately 1:2.

24. The device of claim 22, wherein said predetermined step-down ratio is approximately 1:3.

25. The device of claim 22, wherein said predetermined step-down ratio is approximately 1:4.

26. The device of claim 22, wherein said predetermined step-down ratio is approximately 2:3.

27. The device of claim 22, wherein said predetermined step-down ratio is approximately 3:4.

28. The device of claim 21, wherein said step-down circuit is a capacitor voltage division circuit.

29. The device of claim 21, wherein said regulator is a linear voltage regulator circuit.

30. The device of claim 21, whereby said regulator stabilizes said second voltage to provide a constant voltage to said microcontroller.